

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A filter element comprising a pleated composite including a filter layer having first and second sides, and a first functional drainage layer disposed proximate the first side of the filter layer, the first functional drainage layer comprising a functional material and having a lower edgewise flow resistance than the filter layer, wherein the pleated composite has a plurality of pleats, each having first and second legs, the first leg contacting the second leg of the same pleat and the second leg of an adjacent pleat over a substantial portion of the height of the first leg and wherein the first functional drainage layer is positioned within the pleats to pass fluid in an edgewise direction through the first functional drainage layer along the first side of the filter layer, ~~the fluid being treated by~~ and the functional material treats the fluid passing through the first functional drainage layer, and wherein the filter layer is positioned within the pleats to pass fluid in a thickness direction through the filter layer, ~~the fluid being filtered by~~ and the filter layer filters fluid passing through the filter layer.

2. (Canceled)

3. (Previously Presented) A filter element as claimed in claim 1 wherein the first functional drainage layer has an edgewise flow resistance at most approximately 50% that of the filter layer.

4. (Previously Presented) A filter element as claimed in claim 1 wherein the first leg contacts the second leg of the same pleat and the second leg of an adjoining pleat over a substantially continuous region extending for a substantial portion of the height of the first leg and over at least fifty percent of an axial length of the filter element.

5. (Previously Presented) A filter element as claimed in claim 1 wherein the pleated composite includes a second functional drainage layer disposed on the second side of the filter layer and comprising a functional material and having a lower edgewise flow resistance than the filter layer.

6. (Previously Presented) A filter element as claimed in claim 1 wherein the first functional drainage layer comprises a porous fibrous sheet containing the functional material.

7. (Previously Presented) A filter element as claimed in claim 1 wherein the first functional drainage layer contacts the filter layer.

8. (Previously Presented) A filter element as claimed in claim 1 wherein the filter element is cylindrical.

9. (Previously Presented) A filter element as claimed in claim 1 wherein a plurality of the pleats each have a radially outer end displaced in a circumferential direction of the filter element with respect to a radially inner end of the pleat.

10. (Previously Presented) A filter element as claimed in claim 1 wherein the pleats are substantially parallel to each other.

11-21. (Canceled)

22. (Previously Presented) A method of treating a fluid comprising:
passing a fluid in a thickness direction through a filter layer and in an edgewise direction through a functional drainage layer along a first side of the filter layer of a pleated filter composite to filter the fluid in the filter layer and to treat the fluid with a functional material in the functional drainage layer.

23. (Previously Presented) A method as claimed in claim 22 including passing fluid through a second drainage layer along a second side of the filter layer.

24. (Previously Presented) A method as claimed in claim 22 including passing the fluid in an axial direction of the filter element between opposite lengthwise ends thereof.

25. (Previously Presented) A method as claimed in claim 22 wherein passing the fluid edgewise through the first functional drainage layer includes passing the fluid primarily in an axial direction of the filter element edgewise through the first functional drainage layer.

26. (Previously Presented) A method as claimed in claim 22 wherein passing the fluid edgewise through the first functional drainage layer includes passing the fluid edgewise through the first functional drainage layer primarily along a height of the pleats.

27. (Previously Presented) A method as claimed in claim 22 wherein passing the fluid edgewise through the first functional drainage layer includes passing the fluid edgewise through the first functional drainage layer to the roots of the pleats.

28. (Previously Presented) A method as claimed in claim 22 wherein passing the fluid edgewise through the first functional drainage layer includes passing the fluid edgewise.

29-32. (Canceled)

33. (Previously Presented) The filter element of claim 1 wherein the functional drainage layer is more coarse than the filter layer and performs substantially no removal of particles from the fluid.

34. (Previously Presented) The method of claim 22 wherein the fluid passes edgewise through the functional drainage layer before passing in a thickness direction through the filter layer.

35. (Previously Presented) The method of claim 22 wherein the fluid passes in a thickness direction through the filter layer before passing edgewise through the functional drainage layer.